



**NATIONAL
GEOGRAPHIC**
LEARNING

**VISIBLE THINKING ROUTINES IN THE
ENGLISH LANGUAGE CLASSROOM**

3RD P.A.R.K Conference, 17th April 2021
Alex Warren, National Geographic Learning

ELTNGL.COM

A part of Cengage



Agenda

What are thinking routines?

Why should we use them in the language classroom?

How can I utilise them?

Why We Explore

“21st century education is about giving students a set of **skills, abilities** and **knowledge** they need to develop in order to **succeed** in learning, work and life in the information age.”

<http://21stcenturyskillsbook.com/blog/q-a/>

National

What

are visible
thinking
routines?

Learning

Visible Thinking Routines

National
Geographic
Learning



“They are short, easy-to-learn **mini-strategies** that extend and **deepen** students' **thinking** and become part of the **structure** of everyday classroom life.”

Project Zero

<https://pz.harvard.edu/projects/visible-thinking>



Thinking Dispositions

1. Observing closely and describing
2. Building explanations and interpretations
3. Reasoning with evidence
4. Making connections
5. Considering different viewpoints and perspectives
6. Capturing the heart and forming conclusions
7. Wondering and asking questions
8. Uncovering complexity and going below the surface of things

Ritchart et al, 2011



The volcanic landscape, Dallol, Ethiopia

Work in pairs. Look at the photo and discuss the questions.

- 1 Would you like to visit this place? Why? / Why not?
- 2 Why might this place be considered mysterious? Think of some ideas.
- 3 Are there any mysterious places like this in your country?

Visible Thinking Routines

CORE THINKING ROUTINES

POSSIBILITIES & ANALOGIES

PERSPECTIVES, CONTROVERSIES & DILEMMAS

OBJECTS & SYSTEMS

PERSPECTIVE TAKING

WITH ART OR OBJECTS

DIGGING DEEPER INTO IDEAS

SYNTHESIZING & EXPLORING IDEAS

INTRODUCING & EXPLORING IDEAS

<https://pz.harvard.edu/thinking-routines>

National

Why

should we
incorporate
thinking routines
into our lessons?

Learning

“Learning is the outcome of thinking, and as such gaining insights into the ways students think is crucial for teachers, allowing them to alter students’ thinking dispositions.”

Caroti, Howell, Kester, Dodgson, 2017



The volcanic landscape, Dallol, Ethiopia

Work in pairs. Look at the photo and discuss the questions.

- 1 Would you like to visit this place? Why? / Why not?
- 2 Why might this place be considered mysterious? Think of some ideas.
- 3 Are there any mysterious places like this in your country?

- Development of learner's **thinking** and learning abilities
- Deeper **understanding** of content
- Greater **motivation** for learning
- Development of learner's **attitudes** to learning
- A shift in classroom culture towards a community of **enthusiastically engaged thinkers** and learners
- Facilitates a more **inclusive** and **communicative** classroom



<https://pz.harvard.edu/projects/visible-thinking>

“Learning is a **consequence** of thinking, not something extra we tack on for good measure but something in which we must **actively engage** to promote our own and others’ **learning**.”

Ron Ritchhart, Creating Cultures of Thinking, 2015



National

How

can we use them in
the English Language
classroom?

Learning



National Visible Thinking Routines Pre-Reading/Topic

Unit 3

Food Matters

An Alaskan woman kissing a sockeye salmon that she caught

'As an act of exploration, taste your world.'
Barton Seaver



TO START

1. Why do you think this woman is kissing a fish?
2. Why is food important for your health? For your culture? Explain.
3. What are some of your favourite foods? Where do you get these foods?

Impact Level 4


The 3 Whys

1. Why might this [topic, question] matter to me?
2. Why might it matter to people around me [family, friends, city, nation]?
3. Why might it matter to the world?

Question Starts

- Why...?
- What are the reasons...?
- What if...?
- What if we knew...?
- What would change if...?
- Suppose that...?
- How would X be different if...?
- Suppose that...?
- What is the purpose of...?

Where does our food come from? Why does it matter? Discuss. Then listen and read.  030

1 Where does our food come from? Why does it matter? Discuss. Then listen and read.  030

What did you eat for breakfast this morning? For dinner last night? You might have mealtime routines that are the same – or almost the same – each day. But did you ever stop and think about the connection you have to food?

In the past, people often grew their own crops and raised their own animals. Once the food was harvested, they worked together to get the food to the table. This collaboration helped people to connect with one another, and with the food they prepared.



Harvesting food

Chef and conservationist Barton Seaver realised at a young age that food is part of the human experience. As a child, Barton lived in a diverse community. Immigrants who lived there brought foods from their cultures with them. Barton's parents cooked with these foods, and Barton was grateful to be able to explore the world right from his kitchen. He learnt that food is a reflection of culture: it's part of who we are.

Today, this connection between food and people is breaking down. Globalisation allows food to be shipped anywhere in the world. Since you can buy

44 VOCABULARY

Modern industrial farming



according to your tastes, there's no need to wait until foods become available. And you don't have to spend hours preparing meals as a family. Foods have been prepared and packaged to be more convenient. Although they make life easier, these foods are not as wholesome as fresh, local foods. Packaging and transporting foods also impacts on the environment.

Barton studies the effects of our food choices on the environment, especially the oceans. He understands that we have preferences about seafood, and that fishermen try to get us what we want. But commercial fishing has upset the ocean's ecosystem, and Barton is working to help people change their attitudes about food so that they make better choices.

So, the next time you sit down to a nice main course of fish and vegetables, think about what you're eating. Are the vegetables from a nearby farm or from across the world? Is the fish on your plate an overfished species? Enjoy your dinner, but don't ignore where it comes from. Remember, your choices count!



2 LEARN NEW WORDS Listen and repeat.  031

3 Work in pairs. Describe what you ate and drank at your last meal. Was it wholesome? Where do you think this meal came from? What impact do you think it had on the environment?

VOCABULARY 45

Unit 4

The Footprint of Fun

'An individual action, multiplied by millions, creates global change.'
Jack Johnson

Japanese fans wave rubbish bags before cleaning up after a World Cup game.

TO START

1. When you attend a sporting event, do you clean up after yourself? Why or why not?
2. What fun things can you think of that might not be good for the environment? Which of them do you do?
3. What do you like to do for fun that doesn't harm the environment?

59

Think, Puzzle, Explore

1. What do you think you know about this topic?
2. What questions or puzzles do you have?
3. What does the topic make you want to explore?

3-2-1 Bridge

What are initial responses to the topic of Voluntourism?

3 Thoughts/Ideas

2 Questions

1 Metaphor/Simile

Having read and discussed the article, what are your new responses to the topic?

3 Thoughts/Ideas

2 Questions

1 Metaphor/Simile

How do your new responses connect to your initial response?

Bridge

Close-up B2

Making it work



An American volunteer working in a classroom in Nicaragua

9.1 ▶

1 Hannah Francis has spent a lot of time as a volunteer. Here, she addresses four criticisms of voluntourism.

A It's really the volunteers who benefit

One criticism of voluntourism is that it's all about the volunteer, who travels around the world cheaply while enjoying interesting experiences. Critics argue that the projects themselves are often **meaningless**, designed to keep volunteers busy rather than helping local communities. I admit that voluntourism isn't perfect. But it can still help people. I once worked on an environmental project in Ecuador. The scientists were able to do more research projects with help from volunteers like me. Without our help, the research programme would still have happened, of course, but on a smaller scale. However, the most powerful benefit of voluntourism is often missed: the friendships and cross-cultural learning that it encourages. Locals and volunteers can benefit hugely from learning that we're all the same, despite our differences.

B It's bad for local economies

Another criticism is that volunteers steal jobs from locals. If you build a school for free, some people argue, it's great for the school, but not for local builders who need to make a living. In fact, skilled builders are often still employed, to train the volunteers and fix their mistakes. Of course, it would be quicker and cheaper for the professional builders to do the work themselves, but that's not the point. The project is about more than building a school. Volunteer programmes create new jobs too, by hiring local people to host and feed volunteers, or by encouraging those volunteers to buy from local shops. Sometimes volunteers fill roles that wouldn't otherwise exist. In one place I worked at, I taught in a school which used volunteers because it didn't have the budget for a full-time English teacher. Without volunteers, those classes wouldn't have happened.

C Volunteers are university students travelling to developing countries

Not everyone likes the idea of **privileged** people travelling to developing countries as part of their learning experience. But many volunteers actually stay in their own countries, giving their time for free on projects ranging from animal welfare to repairing walking trails. As for the idea that voluntourism is only something that university students do, when I volunteered in the US, one volunteer I met was 80 years old. It's not difficult to find situations where teams of volunteers are made up of people in their 60s and 70s, with no young university students at all.

D People become dependent on voluntourism

Some critics believe that voluntourism makes people dependent on others, so they can no longer cope by themselves. Critics also say it creates the idea that people from rich countries can 'help' just by being themselves, without any responsibility to learn new skills. The majority of projects aren't like that at all. So where does this misunderstanding come from? The problem may be in the name. To some people, the word 'volunteer' suggests helping people in need, while 'tourist' brings to mind **herds** of holiday-makers taking selfies. Eventually, I came to see myself more as a learner. I did the work that had to be done, from collecting rubbish to data entry. At the same time, I was learning about a place and the problems that people there faced. In the end, voluntourism isn't about making people dependent on our help, or going somewhere to have a holiday. It's about learning new things about the world, while doing something useful.

meaningless (adj): seeming unimportant
privileged (adj): when you have a special advantage because you are rich or because of your social position
herd (n): a large group of animals (e.g. cows) that stay together for safety





The secrets of a long life

An elderly group of singers and dancers in Okinawa

3.1

There are certain places around the world where people live well into their 90s and often past 100. Why do people living in these locations have a longer **life expectancy** than people elsewhere? And what lessons can we learn from the people living in three of these areas?

A Okinawa, Japan

Okinawans are amongst the world's healthiest people. They eat food that is local and have a diet that is unique to the area. Unlike most Japanese, Okinawans eat very little rice. Most of their diet is plant based and they hardly ever eat meat. They also eat **in moderation**. They have a saying, 'eat until your stomach is 80 per cent full'. In addition to a healthy diet and plenty of exercise, there are two other really important factors in Okinawan culture. These are *moai* and *ikigai*. When children are small, parents put them into groups of five. This group of friends becomes a *moai*. The five friends stay in contact and are always there for each other throughout their lives. *Ikigai* means 'that which makes one's life worth living'. For every Okinawan, this will be different. It could be their grandchildren or their *moai*. Whatever it is, their *ikigai* gives them a purpose in life.

B Nicoya Peninsula, Costa Rica

On the other side of the world in Costa Rica, the people of the Nicoya Peninsula have their own type of *ikigai*. Nicoyans call it *plan de vida* or 'reason to live' and it plays a really important role in Costa Rican culture. These 'reasons' give Nicoyans a real sense of purpose. Different generations within the family often live together and centenarians still provide support and look after children, grandchildren and often great-grandchildren. This makes them feel needed and part of a community. Nicoyans also eat a very healthy diet and often spend their days doing hard, physical work outdoors. They celebrate the 'three sisters' of agriculture which are beans,

squash and corn. Nicoyans grow and eat these crops together and they make up the majority of the well-balanced Nicoyan diet. Interestingly too, there is more **calcium** in the water in Nicoya than anywhere else in the country. Calcium is known to strengthen bones and it might also contribute to fewer cases of heart disease.

C Ikaria, Greece

Eleven thousand miles away from the Nicoyan Peninsula lies Ikaria, a small Greek island in the Aegean Sea. The landscape of Ikaria is similar to many of the other Greek islands, but one difference is that Ikarrians often live a lot longer. Again, diet seems to play an important role in the health of the Ikarrians. Homegrown vegetables and fresh fruit make up the majority of the Ikarrian diet and Ikarrians eat a type of leafy spring green called *horta*. In addition, they make a daily tea with herbs that grow on the island and which are known to prevent disease. It's not only eating good food that makes the Ikarrians so healthy and free of disease, but also the hard work and physical activity that goes into growing these **staples** that goes a long way to keeping the inhabitants fit, both mentally and physically.



life expectancy (n): the length of time that someone is expected to live
in moderation not having too much of something
calcium (n): a chemical element which is good for bones and teeth
staples (n): the main products grown and eaten in a certain place

Think, Pair, Share

1. What do you think are the secrets of a long life?

2. Do you think these things help you to lead or prevent you from leading a long and healthy life? Give reasons for your answers.

eating habits exercise friends
setting goals sleep social networking

3. What kind of things do you think people who live to 100 years old do every day?

Close-up B1+



The secrets of a long life

An elderly group of singers and dancers in Okinawa

3.1

There are certain places around the world where people live well into their 90s and often past 100. Why do people living in these locations have a longer **life expectancy** than people elsewhere? And what lessons can we learn from the people living in three of these areas?

A Okinawa, Japan

Okinawans are amongst the world's healthiest people. They eat food that is local and have a diet that is unique to the area. Unlike most Japanese, Okinawans eat very little rice. Most of their diet is plant based and they hardly ever eat meat. They also eat **in moderation**. They have a saying, 'eat until your stomach is 80 per cent full'. In addition to a healthy diet and plenty of exercise, there are two other really important factors in Okinawan culture. These are *moai* and *ikigai*. When children are small, parents put them into groups of five. This group of friends becomes a *moai*. The five friends stay in contact and are always there for each other throughout their lives. *Ikigai* means 'that which makes one's life worth living'. For every Okinawan, this will be different. It could be their grandchildren or their *moai*. Whatever it is, their *ikigai* gives them a purpose in life.

B Nicoya Peninsula, Costa Rica

On the other side of the world in Costa Rica, the people of the Nicoya Peninsula have their own type of *ikigai*. Nicoyans call it *plan de vida* or 'reason to live' and it plays a really important role in Costa Rican culture. These 'reasons' give Nicoyans a real sense of purpose. Different generations within the family often live together and centenarians still provide support and look after children, grandchildren and often great-grandchildren. This makes them feel needed and part of a community. Nicoyans also eat a very healthy diet and often spend their days doing hard, physical work outdoors. They celebrate the 'three sisters' of agriculture which are beans,

squash and corn. Nicoyans grow and eat these crops together and they make up the majority of the well-balanced Nicoyan diet. Interestingly too, there is more **calcium** in the water in Nicoya than anywhere else in the country. Calcium is known to strengthen bones and it might also contribute to fewer cases of heart disease.

C Ikaria, Greece

Eleven thousand miles away from the Nicoyan Peninsula lies Ikaria, a small Greek island in the Aegean Sea. The landscape of Ikaria is similar to many of the other Greek islands, but one difference is that Ikarians often live a lot longer. Again, diet seems to play an important role in the health of the Ikarians. Homegrown vegetables and fresh fruit make up the majority of the Ikarian diet and Ikarians eat a type of leafy spring green called *horta*. In addition, they make a daily tea with herbs that grow on the island and which are known to prevent disease. It's not only eating good food that makes the Ikarians so healthy and free of disease, but also the hard work and physical activity that goes into growing these **staples** that goes a long way to keeping the inhabitants fit, both mentally and physically.



life expectancy (n): the length of time that someone is expected to live
in moderation not having too much of something
calcium (n): a chemical element which is good for bones and teeth
staples (np): the main products grown and eaten in a certain place

Words I know, think I know, don't know

calcium staples life expectancy
 in moderation generations
 homegrown inhabitants local
 agriculture centenarians landscape
 prevent

I know

I think I know

I don't know

Learn

ing

Close-up B1+

A wide-angle photograph of a large, paved public square or promenade. The square is filled with people, some walking, some sitting on the ground, and many motorcycles parked along the edge. In the background, there is a body of water and distant mountains under a dramatic, cloudy sky. Several colorful kites are flying in the air. The overall atmosphere is lively and scenic.

National Visible Thinking Routines Post-Reading/Topic

The 4Cs

Impact Level 3

Connections

What connections do you draw between the text and your own life or your other learning?

Challenge

What ideas, positions, or assumptions do you want to challenge or argue with in the text?

Concepts

What key concepts or ideas do you think are important and worth holding on to from the text?

Changes

What changes in attitudes, thinking, or action are suggested by the text, either for you or others?

Humans in Groups

You and all humans belong to many kinds of groups. In some, membership is involuntary – that is, you were not part of the decision to belong. For example, if you were born in Peru, you are a member of the group Peruvians. Other examples of involuntary group membership include left-handed people or brown-eyed people.

Most of the time, though, you and the rest of us want to join, or become members of, certain groups. Why? Joining the technology club, the school choir, or a volunteer group that visits people in hospital reflects your interests and becomes part of your social identity. You become an accepted member of the chosen in-group. At the same time, you remain different from the out-group, those people who are not in the group. This reflects the human desire to belong, but also the desire to stand out, or be seen as different.

Most groups we join have the intention of lasting over time. They work to influence others in some way. But sometimes emergent groups form without goals or structure. The members of emergent groups don't know each other, but come together suddenly to respond to an event. For instance, a group of people might see a car accident and immediately come together to help the victims.

Not all short-lived groups deal with accidents or disasters. A flash mob, which is a group of people who suddenly assemble to perform in public, only comes together for a short time and then disappears. The goal of a flash mob is to do something surprising and entertaining in public, such as having a pillow fight or dancing in the street.

Whether we're fighting with pillows or helping people, humans are social beings who come together in groups.

6 Discuss in groups.

1. Go back to your own list of the groups you named in Activity 1. What kinds of groups were named? Compare and contrast the groups.
2. In Unit 1, you learnt about your personal identity. In this unit, you learnt about your social identity as a member of groups. How do these two identities influence one another? Give an example.
3. Would you like to be in a flash mob? What would you want the flash mob to do?

Building the cities of the future



Bicycles on the Cirkelbroen (Circle Bridge) in Copenhagen, Denmark

4.1

A

1 Silicon Valley in California used to have a small population, but since the 1970s, it has experienced rapid growth. It is now home to some of the world's most famous technology companies. It is also home to four million people (mostly aged 20–39). But Silicon Valley has a shortage of housing. In Mountain View, home of Google, more than 1,500 people live in parked cars because the cost of a home is so high. If you drive down El Camino Real, a major road through Silicon Valley, you'll mostly see offices and other commercial buildings, and hardly any residential buildings. But if its buildings contained apartments, with shops and offices on the ground floor, they could provide 250,000 new homes while also reducing the need to commute by car. According to Peter Calthorpe, an urban designer, people won't stop using cars if that's the only way to get around. Calthorpe believes that cities should stop expanding into the countryside. They should grow in small, walkable blocks, and stop separating work and home.

B

Paris is a beautiful city, attracting 30 million tourists every year. However, a century ago, there was a plan to destroy its historical buildings in the name of progress. In 1925, Le Corbusier, the father of modernist architecture, proposed building identical office towers in central Paris, with areas of grass between them. There were plans for cars to race along on raised motorways. Le Corbusier's plans for Paris were never realised, but his influence spread widely. It's seen in the housing projects of American city centres and in new cities being planned all over the world. Many of these claim to encourage walking and public transport, but problems still remain. Putrajaya, the new home of Malaysia's government buildings, is a good example. Half of it is devoted to green space. This might sound great, but it takes a long time to walk between buildings, which means that people end up getting in their cars.

C

40 When the urban designer Jan Gehl began his career in 1960, his home city of Copenhagen had a big traffic jam problem. Gehl's focus at that time was on architecture that looked impressive, rather than on designing **humanistic** buildings. But he changed course, and so did Copenhagen. Since the 1960s, it's become a model city for cyclists: two-fifths of all **commuter** journeys are now on two wheels. Gehl believes that we need to think about how we can continually improve our cities for the benefit of the people living in them. He likes knowing that the city is gradually improving every day. He believes young people should grow up in a place that's better than where their parents did.

D

50 Since the 1970s, millions of Chinese families have started moving to cities for work. Huge numbers of identical tower buildings known as 'superblocks' were built quickly. This was good, in that more and more Chinese people were able to have access to good living conditions. However, less thought was given to the spaces between these superblocks. Because the spaces were sometimes uninviting, people didn't tend to use them. In fact, some residents began to demand fences around their blocks in order to feel safer, so many blocks almost became like **gated communities**. Over time, as with many other urban areas all over the world, cities became less walkable and more suitable for cars. But all of that is now changing. In 2016, the Chinese government decided that new cities needed to preserve their history, with smaller, **unfenced** blocks and pedestrian-friendly streets, and to grow around public transport. For example, Xiong'an New Area is designed to be a pleasant, low-rise urban home to millions of people. According to one architect, Xiong'an New Area is an experiment and if it's successful, it can be copied in many other cities.

word focus

humanistic (adj): thinking about the safety, health and happiness of people
commuter (n): a person who travels to work every day
gated community (n): a group of flats or houses that is surrounded by fences or walls
unfenced (adj): not having a wall or barrier around it

3-2-1

3 things I found interesting

2 things I'd like to know more about

1 thing I'd like to fact check

Building the cities of the future



Bicycles on the Cirkelbroen (Circle Bridge) in Copenhagen, Denmark

4.1

A

1 Silicon Valley in California used to have a small population, but since the 1970s, it has experienced rapid growth. It is now home to some of the world's most famous technology companies. It is also home to four million people (mostly aged 20–39). But Silicon Valley has a shortage of housing. In Mountain View, home of Google, more than 1,500 people live in parked cars because the cost of a home is so high. If you drive down El Camino Real, a major road through Silicon Valley, you'll mostly see offices and other commercial buildings, and hardly any residential buildings. But if its buildings contained apartments, with shops and offices on the ground floor, they could provide 250,000 new homes while also reducing the need to commute by car. According to Peter Calthorpe, an urban designer, people won't stop using cars if that's the only way to get around. Calthorpe believes that cities should stop expanding into the countryside. They should grow in small, walkable blocks, and stop separating work and home.

B

Paris is a beautiful city, attracting 30 million tourists every year. However, a century ago, there was a plan to destroy its historical buildings in the name of progress. In 1925, Le Corbusier, the father of modernist architecture, proposed building identical office towers in central Paris, with areas of grass between them. There were plans for cars to race along on raised motorways. Le Corbusier's plans for Paris were never realised, but his influence spread widely. It's seen in the housing projects of American city centres and in new cities being planned all over the world. Many of these claim to encourage walking and public transport, but problems still remain. Putrajaya, the new home of Malaysia's government buildings, is a good example. Half of it is devoted to green space. This might sound great, but it takes a long time to walk between buildings, which means that people end up getting in their cars.

word focus

humanistic (adj): thinking about the safety, health and happiness of people
commuter (n): a person who travels to work every day
gated community (n): a group of flats or houses that is surrounded by fences or walls
unfenced (adj): not having a wall or barrier around it

C

40 When the urban designer Jan Gehl began his career in 1960, his home city of Copenhagen had a big traffic jam problem. Gehl's focus at that time was on architecture that looked impressive, rather than on designing humanistic buildings. But he changed course, and so did Copenhagen. Since the 1960s, it's become a model city for cyclists: two-fifths of all commuter journeys are now on two wheels. Gehl believes that we need to think about how we can continually improve our cities for the benefit of the people living in them. He likes knowing that the city is gradually improving every day. He believes young people should grow up in a place that's better than where their parents did.

D

50 Since the 1970s, millions of Chinese families have started moving to cities for work. Huge numbers of identical tower buildings known as 'superblocks' were built quickly. This was good, in that more and more Chinese people were able to have access to good living conditions. However, less thought was given to the spaces between these superblocks. 60 Because the spaces were sometimes uninviting, people didn't tend to use them. In fact, some residents began to demand fences around their blocks in order to feel safer, so many blocks almost became like gated communities. Over time, as with many other urban areas all over the world, cities became less walkable and more suitable for cars. But all of that is now changing. In 2016, the Chinese government decided that new cities needed to preserve their history, with smaller, unfenced blocks and pedestrian-friendly streets, and to grow around public transport. For example, Xiong'an New Area is designed to be a pleasant, low-rise urban home to millions of people. According to one architect, Xiong'an New Area is an experiment and if it's successful, it can be copied in many other cities. 70

Stop, Think, Discuss

What did I find most interesting? Why?

Did anything surprise/shock me? Why?

Did anything worry/concern me?

Why?

Did anything make me stop and think? Why?

Was there anything I strongly agreed/disagreed with? Why?

Has my view/opinion changed from reading this? Why?

Close-up B2

Compass Points

E = Excited

What excites you about this idea or proposition?
What's the upside?

W = Worrisome

What do you find worrisome about this idea or proposition? What's the downside?

N = Need to Know

What else do you need to know or find out about this idea or proposition? What additional information would help you to evaluate things?

S = Stance or Suggestion for Moving Forward

What is your current stance or opinion on the idea or proposition? How might you move forward in your evaluation of this idea or proposition?



Change for the better

8.1 ▶

1 Many of us feel frustrated and **overwhelmed** by the environmental problems that we're facing – from climate change to the loss of natural habitats and plastic pollution. (1) ___ We must find solutions – and many of us are convinced we will. But why? (2) ___ The technology for dealing with these problems already exists.

Climate change is not an easy problem to solve. Even if we're already doing our best (for example by avoiding travelling by plane or car, by only buying the things we need, or by going vegan), we're all still part of the problem. It's impossible not to be. We all need to eat and stay warm. We **consume** electricity. Many of us have to travel to get to school or work. (3) ___ But soon, living a green lifestyle will become a lot easier. For example, we now have the technology to use **renewable energy** like wind or solar power on a **massive** scale and it's getting cheaper all the time.

20 That means we can dramatically reduce the share of carbon emissions that come from burning fossil fuels to create electricity and heat. This currently represents around 25% of all emissions, but we can easily cut this in half within the next 10 years.

Agriculture is a harder problem to solve. (4) ___ And this figure is likely to grow in the next few decades, when there will be millions more people to feed. How do we make sure there is enough food, without using up more land and producing more carbon emissions? Fortunately, scientists are finding new ways to create authentic-tasting meat alternatives – perfect for burgers! Of course, it's unlikely that everyone will go vegan in the future.

30

However, a lot of people will be eating much less meat than we do now and might find it difficult to understand why people in our time ate so much of it.

As for the rest of our carbon emissions, most of it comes from industry and transport. Again, the technology exists to reduce these emissions, but sometimes, businesses need extra encouragement to invest in it. (5) ___ For example, in Norway, more people are buying electric cars, mainly because there's no sales tax on them, making them as cheap as cars powered by fossil fuels (which will soon be banned in Norway).

50 Finally, there is the danger that some animal and plant species – if we're not careful – may disappear forever. (6) ___ For example, by creating a larger number of protected areas, many species can be saved. Also, by reducing the amount of meat we eat, the land we use for animals such as cows and sheep can be given back to nature.

In other words, the future is in our hands. The worst thing we could do at this stage is to feel pessimistic. If we start believing it's too late to solve the world's problems, we might think that we ought to give up. If we stay optimistic and work together, it's certainly possible for us to make changes for the better.

overwhelmed (adj): feeling that something is too big or too difficult to cope with
consume (v): use or eat something (in large amounts)
renewable energy (n): energy that can be replaced easily or produced as quickly as it can be used
massive (adj): very large
agriculture (n): farming

word
focus

VIDEO

1 BEFORE YOU WATCH Discuss in groups. Describe the size and the atmosphere of a concert or big sporting event that you've attended.

2 Discuss in groups. You're going to watch a video called *The Footprint of Fans*. Based on what you have learnt so far in this unit, predict three ways fans leave an ecological footprint when they attend an event.

3 WHILE YOU WATCH Fill in a T-chart. List two problems and two solutions mentioned in the video. **Watch scene 4.1.**

4 AFTER YOU WATCH Complete the sentences below.

1. Fans are responsible for up to _____ of a concert's carbon footprint.
2. Some concert venues reward fans who carpool by giving them _____.
3. Some sporting events can fill a stadium with up to _____ fans.
4. Sports fans can leave behind _____ tonnes of waste.
5. Recycled plastic and other materials are now used to make _____.

Fans at the closing ceremony for the 2015 European Games held in Baku, Azerbaijan

68 VIDEO

5 Work in pairs. Tick the ways the video suggests that we can reduce our fan footprint.

- only watch games on TV
- carpool to concerts
- buy recycled sporting equipment
- pay less money for tickets
- recycle water bottles
- go to fewer concerts and sporting events

6 Discuss in groups. Answer the questions you see at the end of the video: *What else are you a fan of? How does it impact the environment? How can you take action to become an eco-friendly fan?*

7 YOU DECIDE Choose an activity.

1. **Work independently.** Research a concert or sporting event. How could the organisers have made the event greener? Write a letter to the organisers presenting at least three ideas.
2. **Work in pairs.** Survey your classmates to find out how many attend big events such as concerts or sporting events. Create five questions about transport, rubbish, energy use and recycling at these events. Summarise and report your findings.
3. **Work in groups.** Make a short presentation to your local politicians suggesting how to reduce the carbon footprint of big events in your city.

VIDEO 69

I Used to
Think...
Now I
Think...



National Visible Thinking Routines & Images Geographic

I see...
I think...
I wonder...

Unit 8

Don't Panic!

'Fear is always there. You just need to know how to manage it.'

Jimmy Chin

126

Photographer Jimmy Chin took this photo of a risk-taking climber in Yosemite National Park, California, USA.

TO START

1. Look at the photo. How does it make you feel? How do you think the person in the photo feels?
2. Can you control your fear? What do you do when you feel afraid? Explain, with examples.
3. When can it be good to feel fear? When can it be bad? Give examples.

127

I see...
I think...
I wonder...

Unit 4

Living Together

'Let's think about what we can do today to make sure our grandchildren have the option of seeing wildlife in the future.'

Amy Dickman

A rhinoceros and its caretaker at a conservancy in Kenya

58

TO START

1. What's happening in the photo? How do you think the man feels? The animal?
2. What are situations where people and animals live together peacefully? What are situations where they don't get along?
3. Do you think that seeing wild animals where they live is a good idea? Why or why not?

59

What makes you say that?

Unit 4

Living Together

'Let's think about what we can do today to make sure our grandchildren have the option of seeing wildlife in the future.'

Amy Dickman

A rhinoceros and its caretaker at a conservancy in Kenya

58

TO START

1. What's happening in the photo? How do you think the man feels? The animal?
2. What are situations where people and animals live together peacefully? What are situations where they don't get along?
3. Do you think that seeing wild animals where they live is a good idea? Why or why not?

59

“Without
image,
thinking is
impossible”

Aristotle



Global culture? 2



A server prepares a crepe in Tokyo, Japan

Work in pairs. Look at the photo and discuss the questions.

- 1 In what ways does this photo show a mix of cultures?
- 2 Can you buy food from different cultures in the place where you live?
- 3 Do you think it's useful to borrow things (e.g. food, fashion or words) from other cultures? Why / Why not?

17

Close-up B2

See, Think, Me, We

SEE: Look closely at the photo. What do you notice?

THINK: What thoughts do you have about the photo?

ME: What connections can you make between you and the photo?

WE: How might the photo be connected to bigger stories – about the world and our place in it?

3 Dimensions of Viewing

Personal Viewing

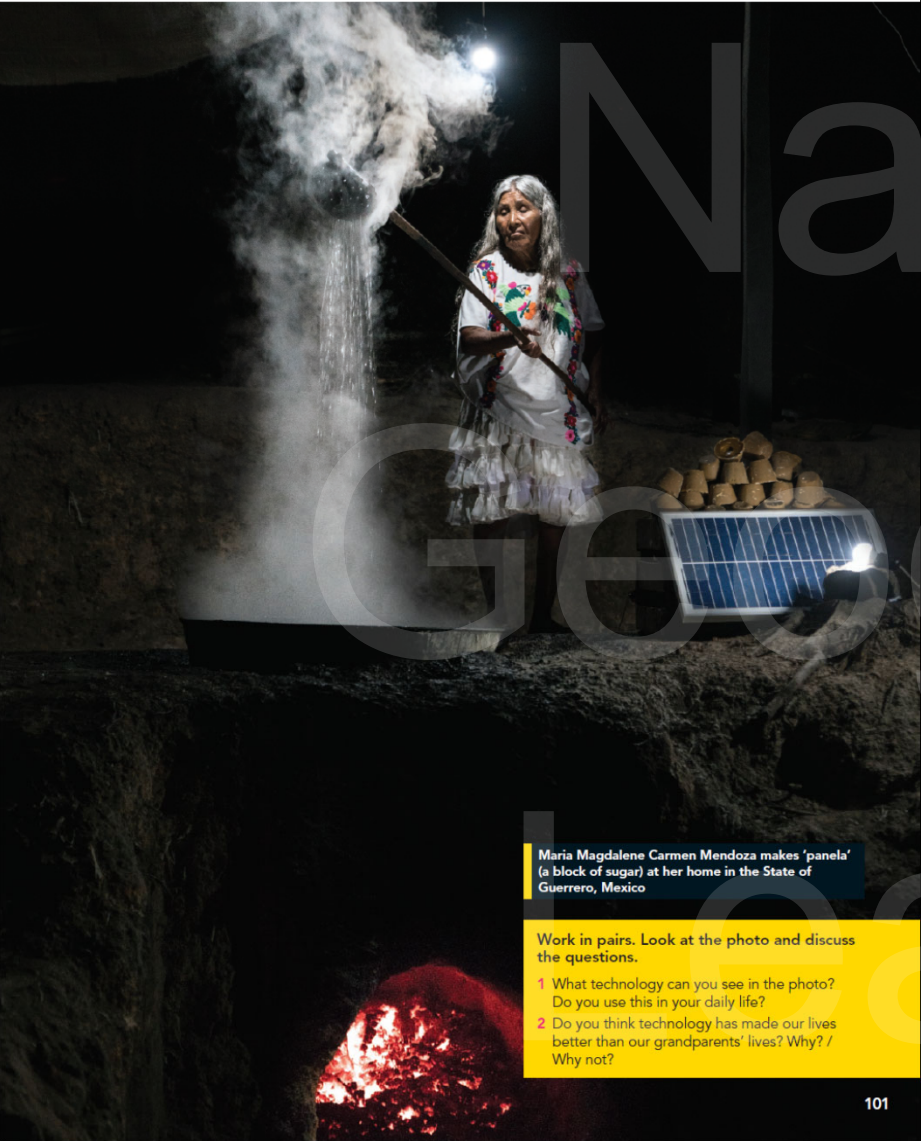
How does this photo make you feel? Why?
Does it remind you of anything?

Structural Viewing

What is happening in the image? What might lie outside the image? What's it focussing on? Why?

Critical Viewing

What message is the image trying to convey? Can it be interpreted in more than one way?



Maria Magdalene Carmen Mendoza makes 'panela' (a block of sugar) at her home in the State of Guerrero, Mexico

Work in pairs. Look at the photo and discuss the questions.

- 1 What technology can you see in the photo? Do you use this in your daily life?
- 2 Do you think technology has made our lives better than our grandparents' lives? Why? / Why not?

Beginning, Middle, End

Choose one of these questions:

1. If this image is the **beginning** of a story, what might happen next?
2. If this artwork is the **middle** of a story, what might happen before? What might be about to happen?
3. If this artwork is the **end** of a story, what might the story be?

Close-up B2

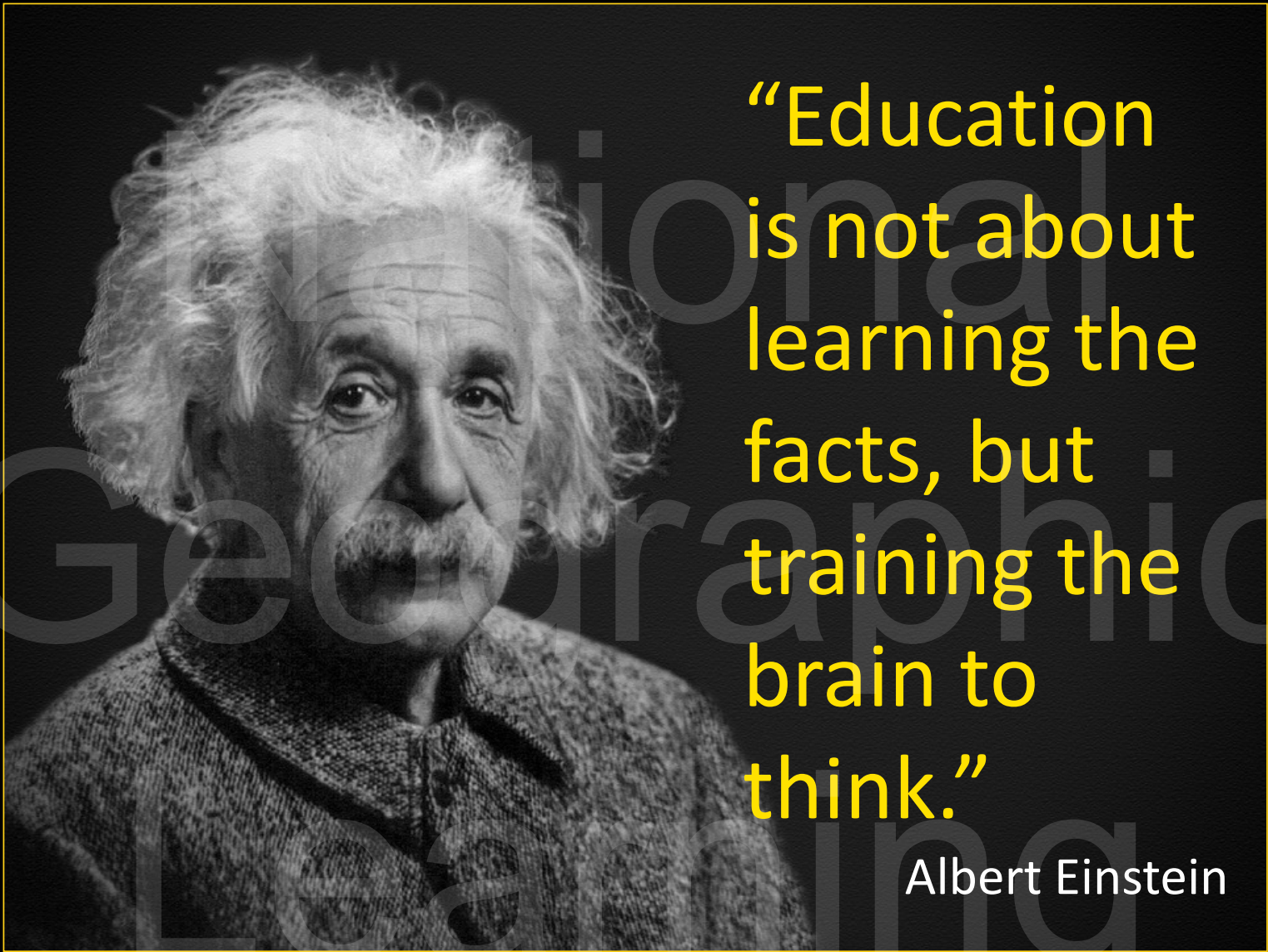
Crime time **11**



A police officer makes a call, Indiana, USA

Work in pairs. Look at the photo and discuss the questions.

- 1 Do you often see police officers where you live? Is this a good thing?
- 2 Does the city or area where you live feel safe?
- 3 Have you ever been pickpocketed?



“Education is not about learning the facts, but training the brain to think.”

Albert Einstein

Join National Geographic Learning!

webinars



ELTNGL.com/webinars

in focus



ELTNGL.com/infocus

